

What is claimed is:

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1. A recordable digital video disc comprising a transparent disc substrate provided with a spiral pre-groove, a recording dye layer placed in the pregroove on which information is recorded by irradiation with a laser beam, and a light-reflecting layer, arranged in order, wherein the recording dye layer has a thickness in the range of 40% to 90% of a thickness corresponding to an optical path which gives the first minimum reflectance, the optical path giving the first minimum reflectance being determined from a reflectance curve which is prepared using recordable digital video discs composed of the same disc substrate, the same recording dye layer having varying thickness, and the same light-reflecting layer.

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2. The recordable digital video disc of claim 1, wherein the recording dye layer has a thickness in the range of 40% to 75% of the thickness corresponding to an optical path which gives the first minimum reflectance.

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3. The recordable digital video disc of claim 1, wherein the recording dye layer has a thickness in the range of 45% to 70% of a thickness corresponding to an optical path which gives the first minimum reflectance.

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4. The recordable digital video disc of claim 1, wherein the recording dye layer has a thickness in the range of 50% to 70% of a thickness corresponding to an optical path which gives the first minimum reflectance.

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5. The recordable digital video disc of claim 1, wherein the recording dye layer has a thickness of 55 to 95 nm.

6. The recordable digital video disc of claim 1, wherein the recording dye layer has a thickness of 60 to 95 nm.

5 7. The recordable digital video disc of claim 1, wherein the recording dye layer has a thickness of 65 to 93 nm.

8. The recordable digital video disc of claim 1,
10 wherein the pregroove has a depth of 50 to 250 nm.

9. The recordable digital video disc of claim 1, wherein the pregroove has a half-width of 100 to 450 nm.

15 10. A method of recording information which comprises irradiating a recordable digital video disc of claim 1 with a laser beam having a wavelength of 600 to 700 nm.

Sub/ 20 11. A recordable digital video disc comprising a transparent disc substrate provided with a spiral pre-groove, a recording dye layer placed in the pregroove on which information is recorded by irradiation with a laser beam, a light-reflecting layer, and a disc substrate,
25 arranged in order, or comprising a pair of a transparent disc substrate provided with a spiral pregroove, a recording dye layer placed in the pregroove on which information is recorded by irradiation with a laser beam, a light-reflecting layer, arranged in order, said recording
30 dye layers being placed between the transparent disc substrates, wherein each of the recording dye layers has a thickness in the range of 40% to 90% of a thickness corresponding to an optical path which gives the first minimum reflectance, the optical path giving the first minimum
35 reflectance being determined from a reflectance curve which is prepared using recordable digital video discs

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~~composed of the same disc substrate, the same recording dye layer having varying thickness, and the same light-reflecting layer.~~

5 12. The recordable digital video disc of claim 11, wherein each of the recording dye layers has a thickness in the range of 40% to 75% of the thickness corresponding to an optical path which gives the first minimum reflectance.

10 13. The recordable digital video disc of claim 11, wherein the recording dye layer has a thickness in the range of 45% to 70% of a thickness corresponding to an optical path which gives the first minimum reflectance.

15 14. The recordable digital video disc of claim 11, wherein the recording dye layer has a thickness in the range of 50% to 70% of a thickness corresponding to an optical path which gives the first minimum reflectance.

20 15. The recordable digital video disc of claim 11, wherein each of the recording dye layers has a thickness of 55 to 95 nm.

25 16. The recordable digital video disc of claim 11, wherein the recording dye layer has a thickness of 60 to 95 nm.

30 17. The recordable digital video disc of claim 11, wherein the recording dye layer has a thickness of 65 to 93 nm.

35 18. The recordable digital video disc of claim 11, wherein the pregroove has a depth of 50 to 250 nm.

19. The recordable digital video disc of claim 11, wherein the pregroove has a half-width of 100 to 450 nm.

5 20. A method of recording information which comprises irradiating a recordable digital video disc of claim 11 with a laser beam having a wavelength of 600 to 700 nm.